

SECTION 609 CURBS AND GUTTERS

609.01 DESCRIPTION. This work is constructing curbs, integral curb and gutter, median curbs, and furnishing and installing precast concrete curbs.

609.02 MATERIALS. Furnish materials meeting the following requirements:

Air-entrained Class "D" Concrete	Section 551
Reinforcing Steel	Subsection 711.01
Joint Materials	Subsection 707.01
Yellow Traffic Line Paint	Subsection 714.04
Bituminous Mixtures	Section 401

609.03 CONSTRUCTION REQUIREMENTS.

609.03.1 General. Construct curbs and integral curb and gutter having uniform surfaces and true lines. Remove and replace curb sections that prevent drainage or proper joining of subsequent work at Contractor expense.

Construct curbs and integral curb and gutter meeting the Contract requirements and as follows.

609.03.2 Foundations and Forms. Excavate, prepare and compact cast-in-place curb and gutter foundations meeting the moisture and density requirements of Subsection 203.03.3.

Use full depth metal or straight-grained finished lumber forms, free of warp or irregularities, and having the strength to resist springing or deviation from alignment and grade. Securely stake and brace forms with headers and clamps. Clean and oil form surfaces in contact with concrete before placing the concrete.

609.03.3 Cast-in-Place Curb and Gutter. Moisten the foundations and forms immediately before placing concrete.

Place and consolidate the concrete in uniform layers not exceeding 6-inches (155 mm) loose depth.

Do not place concrete on a frozen foundation course or subgrade.

Construct concrete curb meeting Subsection 501.03.18 and .19 requirements.

Once the concrete has its initial set, remove the forms and repair honeycombed and rough surfaces using 1:2 mortar. Use wooden floats to remove form marks or other irregularities. Apply a brush finish to the final surface using an approved brush before the concrete sets. Finish all concrete edges, including those at expansion joints, to the required radii.

Water cure concrete or use a curing compound meeting Section 551.03.6 requirements. Water cure keeping the concrete wet for 7 days after finishing.

609.03.4 Slip-Formed Concrete Curb and Gutter. Concrete curb and gutter may be constructed using a curb forming or slip-form machine.

609.03.5 Precast Concrete Curbs. Furnish precast curb meeting Section 554 requirements and install as specified.

609.03.6 Bituminous Curbs. Clean surfaces receiving bituminous curb and prime with SS-1 emulsified asphalt diluted 1:1 with water. Apply approximately 0.2 gallon per square yard (0.91 L per m²).

Use the project surfacing bitumen mixed with water in a mixer of at least 3 cubic feet (0.08 m³) capacity, that meets Section 401 requirements.

The asphalt quantity in the bituminous curb mixture will be established by the Project Manager and will be at least 1% more than that used in the surfacing mixture.

Feed the bituminous mixture to the extrusion or curb machine at a temperature that prevents sloughing or tearing of the material or surface. Pressurize the mixture through an orifice or plate. The machine must heat and compact the curb as it is produced.

Compact all material not placed and compacted by the curb machine using mechanical tampers.

If other than 60-70 penetration asphalt cement is used, apply a fog coat of SS-1 emulsified asphalt diluted 1:1 with water to the finished curb at approximately 0.2 gallon per square yard (0.91 L per m²).

609.03.7 Painting Curbs. Paint curbs, island curbs, and median curbs meeting Subsection 620.03.3(C) requirements.

609.04 METHOD OF MEASUREMENT. Curb, integral curb and gutter, median concrete curb, are measured by the linear foot (meter) to the nearest 0.1 foot (0.1m) along the face of the curb at the flowline.

Reinforcing steel, joint materials, excavation and foundation preparation, and emulsified asphalt for prime coat are not measured separately.

Paint and painting is measured by the gallon (Liter) under Subsection 620.04.

609.05 BASIS OF PAYMENT. Payment for completed and accepted quantities is made under the following:

<u>Pay Item</u>	<u>Pay Unit</u>
Curb	Linear Foot (Linear Meter)
Integral Curb and Gutter	Linear Foot (Linear Meter)
Median Concrete Curb	Linear Foot (Linear Meter)
Paint	Gallon (liter)

Payment at the contract unit price is full compensation for all resources necessary to complete the item of work under the Contract.